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(54) Title: GLOBAL ACCESS SYSTEM OF MULTI-MEDIA RELATED INFORMATION			
(57) Abstract <p>A system for purchasing a personal recording media includes a first entering unit for entering an identification information in order to identify a customer, a unit connected to the first entering unit for identifying whether or not the customer is an authorized customer based on the entered identification information, a second entering unit connected to the identifying unit for entering at least one designated information by the customer when the customer is identified as an authorized customer in accordance with the identifying unit, a unit for storing a plurality of information, a unit connected to the second entering unit and the information storing unit for reading information associated with the designated information by retrieving the plurality of information in the information storing unit based on the designated information entered by the second entering unit, and a unit connected to the information reading unit for recording the information read from the information storing unit into a predetermined recording media.</p>			

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DESCRIPTION

GLOBAL ACCESS SYSTEM OF MULTI-MEDIA RELATED INFORMATION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a system for purchasing a personal recording media, and more particularly to a system capable of searching one or more musical compositions, editing the searched musical compositions, and purchasing a recording media such as CD, MD, cassette tape and the like into which the edited musical compositions are inserted.

2. Description of the Related Art

In general, a customer can produce an original compilation recording media which is unique to the customer by renting or purchasing a MD, CD, cassette tape and the like, selecting the customer's favorite musical compositions by utilizing a reproducing/recording apparatus such as a CD player/recorder, a cassette deck and the like, and editing and recording the selected musical compositions into recording media such as a MD, CD, or cassette tape in the customer's preferred order.

For example, even for musical compositions by a single musician or artist, it is rare that all personally favorite musical compositions are recorded in just one album such as an MD, CD, or cassette tape. Accordingly, when the customer desires to produce a personally original compilation recording media such as an album composed of only the customer's personally favorite musical compositions,

the customer has to purchase or rent a plurality of MDs, CDs, cassette tapes and the like, and then select, edit, and then record personally favorite musical compositions using reproducing/editing/recording storage apparatus in such a manner that a few musical compositions are selected from one album, more musical compositions are selected from another album and further musical compositions are selected from another album.

Similarly, when the customer desires to produce an album composed of musical compositions by a plurality of musicians or artists, a plurality of albums by each of the musicians or artists have to be purchased or rent, and then the desired personally original compilation recording media must be produced by using the reproducing/editing/recording storage apparatus.

In the above mentioned conventional methods, there is a problem, such that when a customer desires to produce an original compilation recording media, the customer has to purchase or rent a plurality of MDs, CDs, cassette tapes and the like, and then select, edit, and then record personally favorite musical compositions from them using reproducing/editing/recording storage apparatus, and as a result, it would be more costly than purchasing one MD, CD, cassette tape and the like having those personally favorite musical compositions, and also it would take time for reproducing/editing/ recording.

Further, there is another problem, such that because a customer freely produces a personally original compilation recording media by copying the musical compositions from a plurality of MDs, CDs, cassette tapes and the like, without concern for the existence of the copyrights of the musical compositions, the copyright owners can not collect royalties for the copyrights regarding their own musical compositions, and as a result, no return has been provided for the music

industries as well as for the musical composers.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a system for purchasing a personal recording media, which system is capable of arbitrarily selecting or designating the customer's favorite musicians or artists, arbitrarily selecting or designating musical compositions by the selected musicians or artists, and purchasing a personally original compilation recording media composed of the selected or designated musical compositions.

It is another object of the present invention to provide a method of purchasing a personal recording media for arbitrarily selecting or designating the customer's favorite musicians or artists, arbitrarily selecting or designating musical compositions by the selected musicians or artists, and purchasing a personally original compilation recording media composed of the selected or designated musical compositions.

It is still another object of the present invention to provide a recording media of recording a personal recording media purchasing program for arbitrarily selecting or designating the customer's favorite musicians or artists, arbitrarily selecting or designating musical compositions by the selected musicians or artists, and purchasing a personally original compilation recording media composed of the selected or designated musical compositions.

It is further object of the present invention to provide a system for purchasing a personal recording media, which system is capable of automatically collecting royalties for copyrights and the like regarding the musical compositions incorporated into the recording media at a time when a customer

purchases a personally original compilation recording media, and also capable of implementing the return and the like concerning the use of the musical compositions for the copyrighters and the like.

It is another object of the present invention to provide a method of purchasing a personal recording media for automatically collecting royalties for copyrights and the like regarding the musical compositions incorporated into the recording media at a time when a customer purchases a personally original compilation recording media, and for implementing the return and the like concerning the use of the musical compositions for the copyrighters and the like.

It is still another object of the present invention to provide a recording media of recording a personal recording media purchasing program for automatically collecting royalties for copyrights and the like regarding the musical compositions incorporated into the recording media at a time when a customer purchases a personally original compilation recording media, and for implementing the return and the like concerning the use of the musical compositions for the copyrighters and the like.

The objects of the present invention can be achieved by a system for purchasing a personal recording media, comprising:

- a first entering unit for entering an identification information in order to identify a customer;

- a unit connected to the first entering unit for identifying whether or not the customer is an authorized customer based on the entered identification information;

- a second entering unit connected to the identifying unit for entering at least one designated information by the customer when the customer is identified

as an authorized customer in accordance with the identifying unit;

a unit for storing a plurality of information;

a unit connected to the second entering unit and the information storing unit for reading information associated with the designated information by retrieving the plurality of information in the information storing unit based on the designated information entered by the second entering unit; and

a unit connected to the information reading unit for recording the information read from the information storing unit into a predetermined recording media.

Preferably, a system for purchasing a personal recording media according to the present invention further includes unit for implementing a predetermined accounting process regarding the recording media into which the information has been recorded.

Another object of the present invention can be achieved by a system for purchasing a personal recording media, comprising:

a first station, including

a first entering unit for entering an identification information in order to identify a customer;

a second entering unit for entering at least one designated information by the customer when the customer is identified as an authorized customer;

a second station, including

a unit connected to the first station for identifying whether or not the customer is an authorized customer based on the identification information entered by the first entering unit;

- a unit for storing a plurality of information;

- a unit for reading information associated with the designated information by retrieving the plurality of information in the information storing unit based on the designated information entered by the second entering unit;

- a unit connected to the information reading unit for recording the information read from the information storing unit into a predetermined recording media; and

- a unit for implementing a predetermined accounting process regarding the recording media into which the information has been recorded,

wherein, the customer can purchase the recording media at the first station in such a manner that the recording media consisting of the information corresponding to an arbitrary number of the designated information entered from the second entering unit by the customer at the first station is produced at the second station, and then the produced recording media is delivered to the first station.

Preferably, the first station further includes

- a unit for storing a specific information consisting of a part of the plurality of information stored in the information storing unit at the second station; and

- a unit for retrieving the specific information storing unit based on the designated information entered from the second entering unit by the customer and for displaying, to the customer, the specific information associated with the designated information entered.

Yet another object of the present invention can be achieved by a system for purchasing a personal recording media, comprising:

a first station, including

a first entering unit for entering an identification information in order to identify a customer;

a second entering unit for entering at least one designated information by the customer when the customer is identified as an authorized customer;

a first information storing unit for storing a plurality of information;

a information recording unit for recording information associated with the designated information by retrieving the plurality of information of the first information storing unit based on the designated information entered from the second entering unit;

a second station, including

a unit connected to the first station for identifying whether or not the customer is an authorized customer based on the identification information entered by the first entering unit;

a second information storing unit for storing a plurality of information corresponding to the plurality of information stored in the first storing unit;

a unit for implementing a predetermined accounting process regarding the recording media into which the information has been recorded;

a third station, connected to the first station and the second station, respectively, including

a latest information storing unit for storing the latest information, wherein, the first station and the second station update the plurality of information stored in the first information storing unit and the second information storing unit, respectively, based on the latest information stored in the latest information storing unit,

wherein the customer can purchase the recording media at the first station in such a manner that the recording media consisting of an arbitrary number of the information is produced at the first station based on the designated information entered by the customer at the first station.

Preferably, the plurality of information stored in the first information storing unit and the plurality of information stored in the second information storing unit are musical composition information which include information concerning a musical composition list, a musical composition data, an index and a copyright.

Still another object of the present invention can be achieved by a system for purchasing a personal recording media, comprising:

a first station, including

- a first entering unit for entering an identification information in order to identify a customer;

- a second entering unit for entering at least one designated information by the customer when the customer is identified as an authorized customer;

a second station, including

- a unit connected to the first station for identifying whether or not the customer is an authorized customer based on the identification information entered by the first entering unit;

- an information storing unit for storing a plurality of information;

- a unit for reading the information associated with the designated information by retrieving the plurality of information in the information storing unit based on the designated information entered from the second entering unit;

information recording unit connected to the information reading unit for recording the information read from the information storing unit into a predetermined recording media;

a unit for implementing a predetermined accounting process regarding the recording media into which the information has been recorded;

a third station, connected to the first station and the second station, respectively, including

a latest information storing unit for storing the latest information, wherein, the first station and the second station update the plurality of information stored in the information storing unit in the second station based on the latest information stored in the latest information storing unit, as necessary,

wherein the customer can purchase the recording media at the first station in such a manner that the recording media consisting of an arbitrary number of the information is produced at the second station, based on the designated information entered by the customer at the first station, and then the produced recording media is delivered to the first station.

It is preferable that the first station further include

a unit for storing specific information consisting of a part of the plurality of information stored in the information storing unit at the second station; and

a unit for retrieving the specific information storing unit based on the designated information entered from the second entering unit by the customer and for displaying, to the customer, the specific information associated with the designated information entered.

The information storing unit is preferably a musical composition information storing unit, and the plurality of information stored therein are a plurality of musical composition information which includes information concerning a musical composition list, a musical composition data, an index and a copyright.

The musical composition information storing unit is preferably a database having an accumulable specification which unifies the music, and is constituted by digitizing and unifying a sound source, MIDI data, music score data, and right attribution data.

Further preferably, the musical composition information storing unit includes five categories of a music attribution, an original disc right, a copyright, a music score, and a sound source.

More preferably, the information storing unit is a video information storing unit, and the plurality of information are a plurality of video information which includes information regarding video data, sound data, an index, and a copyright.

It is preferable that the information storing unit is a program storing unit, and the plurality of information are a plurality of program information which includes information regarding a plurality of programs, an index, and a copyright.

Another object of the present invention can be achieved by a method of purchasing a personal recording media, with which a customer can purchase the recording media composed of an arbitrary number of desired information, comprising the steps of:

entering an identification information in order to identify a customer;
identifying whether or not the customer is an authorized customer based

on the entered identification information;

entering at least one designated information by the customer when the customer is identified as an authorized customer in accordance with a result of the identifying;

reading information associated with the designated information by retrieving a database which includes a plurality of information based on the designated information entered;

storing the read information into a predetermined recording media; and implementing a predetermined accounting process regarding the recording media into which the information are recorded.

Preferably, the plurality of information are the musical composition information which include information concerning a musical composition list, musical composition data, an index and a copyright.

Further preferably, the plurality of information are a plurality of video information which includes information regarding video data, sound data, an index, and a copyright.

More preferably, the plurality of information are a plurality of program information which includes information regarding a plurality of software programs, an index, and a copyright.

Further object of the present invention can be achieved by a recording media having a program for purchasing a personal recording media, with which a customer can purchase the recording media composed of an arbitrary number of desired information, the program comprising the steps of:

entering an identification information in order to identify a customer;
identifying whether or not the customer is an authorized customer based

on the entered identification information;

entering at least one designated information by the customer when the customer is identified as an authorized customer in accordance with a result of the identifying;

reading information associated with the designated information by retrieving a database which includes a plurality of information based on the designated information entered;

storing the read information into a predetermined recording media; and implementing a predetermined accounting process regarding the recording media into which the information are recorded.

Preferably, the plurality of information are the musical composition information which include information concerning a musical composition list, musical composition data, an index and a copyright.

Further preferably, the plurality of information are a plurality of video information which includes information regarding video data, sound data, an index, and a copyright.

More preferably, the plurality of information are a plurality of program information which include information regarding a plurality of software programs, an index, and a copyright.

The video data is preferably motion picture data.

The video data is television program data, preferably.

Preferably, the video data is a commercial program data.

The plurality of information are preferably a plurality of image information which include information regarding a graphic data, a sound data, an index, and a copyright.

More preferably, the video information storing unit is a Digital Versatile Disc (DVD).

Preferably the video information storing unit is a video cassette tape (VCT).

The system for purchasing a personal recording media according to the present invention is capable of arbitrarily selecting or designating the customer's favorite musicians or artists, arbitrarily selecting or designating the musical compositions by the selected musicians or artists, and purchasing a personally original compilation recording media composed of the selected or designated musical compositions.

Furthermore, the system for purchasing a personal recording media according to the present invention is capable of automatically collecting the royalty for the copyrights and the like regarding the musical compositions incorporated into the recording media at a time when a customer purchases a personally original compilation recording media, and is also capable of implementing the return and the like concerning the use of the musical compositions for the copyright holders and the like.

The above mentioned features of the system according to the present invention could be also equally applicable to the method and the media according to the present invention as well.

BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects of the invention will be apparent upon consideration of the following detailed description, taken in conjunction with the accompanying drawings, in which the reference characters refer to like parts

throughout and in which:

Fig. 1 is a schematic diagram showing a first embodiment of the system for purchasing a personal recording media according to the present invention;

Fig. 2 is an illustrative diagram of one portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 3 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 4 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 5 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 6 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 7 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 8 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 9 is an illustrative diagram of another portion of the operation of

the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 10 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 1;

Fig. 11 is a diagram showing one example of the specification of the music database which is one of the main components of the system for purchasing a personal recording media according to the present invention;

Fig. 12 is a diagram showing one example of the index database which composes one portion of the music database of the system for purchasing a personal recording media shown in Fig. 11;

Fig. 13 is a diagram showing another example of the index database which composes one portion of the music database of the system for purchasing a personal recording media shown in Fig. 11;

Fig. 14 is a schematic diagram showing a second embodiment of the system for purchasing a personal recording media according to the present invention;

Fig. 15 is an illustrative diagram of one portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 16 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 17 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 18 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 19 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 20 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 21 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 22 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 23 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 14;

Fig. 24 is a schematic diagram showing a third embodiment of the system for purchasing a personal recording media according to the present invention;

Fig. 25 is an illustrative diagram of one portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 26 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present

invention shown in Fig. 24;

Fig. 27 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 28 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 29 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 30 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 31 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 24;

Fig. 32 is a schematic diagram showing a fourth embodiment of the system for purchasing a personal recording media according to the present invention;

Fig. 33 is an illustrative diagram of one portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 34 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 35 is an illustrative diagram of another portion of the operation

of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 36 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 37 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 38 is an illustrative diagram of another portion of the operation of the system for purchasing a personal recording media according to the present invention shown in Fig. 32;

Fig. 39 is a schematic diagram showing the fifth embodiment of the system for purchasing a personal recording media according to the present invention;

Figs. 40 to 51 are illustrative diagrams showing an operation of the fifth embodiment shown in Fig. 39;

Fig. 52 is an illustrative diagram showing a summary of the processes of the fifth embodiment shown in Fig. 39;

Fig. 53 is a diagram showing one example of the configurations of the main parts of the server-client system shown in Fig. 39;

Fig. 54 is a schematic diagram showing a sixth embodiment of the purchasing system according to the present invention;

Fig. 55 is a diagram showing another embodiment of the music database according to the present invention;

Fig. 56 is a diagram showing a display menu on the display monitor of the system shown in Fig. 54;

Fig. 57 consisting of Figs. 57a, 57b and 57c, and each of figures is a diagram showing a different kind of initial menu, which is displayed on the display screen;

Fig. 58 is a diagram showing one example of the content of the Permission File to be used for the system of the present system;

Fig. 59 is a diagram showing one example of the content of the Charging Rate & Fee File to be used for the system of the present system;

Fig. 60 is a schematic diagram illustrating the overall processes using the "Permission File" shown in Fig. 59 and the "Charging Rate & Fee File" shown in Fig. 60 according to the present invention; and

Fig. 61 consisting of Figs. 61a, 61b, and 61c and each of figures is a diagram illustrating the processes shown in Fig. 60.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the following, referring to the accompanying drawings, the preferred embodiments of the system for purchasing a personal recording media according to the present invention will be described in detail.

Fig. 1 is a schematic diagram showing a first embodiment of the system for purchasing a personal recording media (hereinafter referred to as "a purchasing system") according to the present invention.

As shown in Fig. 1, the main parts of the purchasing system in this embodiment are composed of a store 10, that is a KIOSK such as a convenience store or a gasoline station and the like which will be easily accessed by a customer, and a backchannel company 20. Store 10 is connected with backchannel company 20 using an internet or a private line (leased line) 40.

The store 10 includes a MD production application accepting system 11 (hereinafter referred to as the "AAS") which is composed of a monitor, a card reader, and a database retrieval/application terminal (not shown), a musical composition database 12 connected to the AAS 11, a store equipment managing system 13 connected to both the AAS 11 and the musical composition database 12, and a communication system 14 connected to the store equipment managing system 13.

The backchannel company 20 includes a communication system 21 connected to the communication system 14 of the store 10 via a telephone or an internet line 40 and the like; a server-client system (hereinafter referred to as the "host-computer") 22 connected to the communication system 21; a music database 27 connected to the host-computer 22 and including a musical composition list database 23, a musical composition data database 24, an index database 25 as well as a copyright database 26; a MD writer 28 connected to the music database 27; a printer 29 connected to the music database 27; and a company side database 32 connected to the host-computer 22 and including a customer database 30 as well as an accounting approval database 31.

In the following, by referring to Figs. 2 to 9, an operation of the purchasing system shown in Fig. 1 will be described.

1-1. Membership Recognition Step

At first, a switch of the purchasing system is turned on by touching a "START" entry display on a screen of a touch sensor type monitor (hereinafter referred to as the "monitor") in the AAS 11. A word "WELCOME" is displayed on the monitor screen, and then words "PLEASE INSERT A CARD" are displayed on the screen.

When the customer is a registered member of the purchasing system, he/she should insert his/her member card into the card reader of the AAS 11. Further, when the

customer is a non-registered member, he/she should apply for a membership registration at the store and purchase a new member card, and then insert the purchased member card into the card reader. Herein, the purchasing system can be constituted as having a new membership card manufacturing function such that a new member card can be automatically manufactured based on anything which can verify the customer's identification, such as the customer's driver's license or bank card.

After the card reader has read the member card, the words "PLEASE ENTER YOUR PERSONAL IDENTIFICATION NUMBER" are displayed on the monitor. According to the display thereof, the customer will enter a personal identification number (hereinafter referred to as the "PIN") unique for each member. The entry of the PIN can be implemented by touching the alphanumeric characters displayed on the monitor screen. The information of the entered PIN and the information of the member registration number of the member card, which has been read in advance by the card reader, are transmitted from the communication system 14 via the telephone line 40 to the host-computer 22 through the communication system 21 of the backchannel company 20.

In the backchannel company 20, the host-computer 22 searches the customer managing database 30 of the company side database 32 based on the information of the PIN and the member registration number transmitted from the store 10, and matches whether or not the customer is a valid member, and then transmits the information concerning the result of that match from the communication system 21 via the telephone line 40 to the AAS 11 through the communication system 14 of the store 10. Further, the host-computer 22 will produce a customer code E when the customer is a valid member.

The AAS 11 in the store 10 displays the words "OK" on the monitor screen's display when the customer is a valid member, based on the received information concerning the result of the match. On the other hand, when the customer is an invalid member, then the AAS 11 displays the words "INVALID" on the monitor screen's display. In case the wrong PIN was entered during the above mentioned operation, it could be constituted such that the PIN can be re-entered by displaying the words "INVALID" on the screen, and then displaying the words "PLEASE ENTER YOUR PERSONAL IDENTIFICATION NUMBER AGAIN WITH GREAT CARE" on the screen.

In this case, in view of security, it could be set such that a limit would be imposed on the number of times that a PIN can be re-entered. And if the match cannot be made within the defined number of times for the re-entry, the purchasing system is automatically turned off.

When the word "OK" is displayed on the monitor screen in the above mentioned step, the monitor displays the words "LET'S SELECT THE MUSICAL COMPOSITIONS" on the screen, and then the operation will proceed to the musical composition selection step.

1-2. Musical Composition Selection Step

As shown in Fig. 3A, the musical composition selection items for "the first music piece" are displayed on the monitor screen. In these musical composition selection items, the items of (a) the title of a musical composition, (b) the name of an artist, (c) the title of an album, (d) the names of the songwriter/composer, (e) the category, (f) the manufactured date, (g) a portion of the words, (h) a portion of the melody (tune), and (i) the recommended lineup are displayed, respectively.

The customer enters the necessary information by looking at the musical composition selection items displayed on the monitor screen, in order to select the first music piece. There are various methods of entering this information. For example, the necessary information can be entered by using the keyboard or can be directly written on the screen by using a touch pen.

The AAS 11 will obtain the necessary information by searching the musical composition list database 12 in the store 10 based on the information entered on the monitor screen.

As an example, Fig. 3B shows the monitor screen when the customer has entered (b) the name of an artist, (g) a portion of the words, and (h) a portion of the melody, respectively.

Herein, it could be constituted such that a voice recognition method can be adopted for the entry of (h) a portion of the melody, and making a recognition of the melody that the customer is singing using that recognition method, and it could be constituted such that the recognized melody is further converted to the score corresponding thereto, and then the converted score is displayed on the screen of the monitor.

After these entries have been completed, the search is implemented by pushing the "search button" which is displayed on the monitor screen, and then the search result as shown in Fig. 3C is displayed on the monitor screen. That is, as a result of the search, the title of the first music piece, "I LOVE YOU" in this example, as well as its music code "044ESPD382401" are displayed on the monitor screen, and the selection items "SELECTION BUTTON", "CANCEL BUTTON", "END BUTTON" are also displayed on the monitor screen at the same time.

The customer verifies the first music piece displayed on the monitor screen,

and then touches the "SELECTION BUTTON" if the entered information is confirmed. When the "SELECTION BUTTON" is touched, the music code is accumulated into a hard disc of the AAS 11, as well as the musical composition selection items for the second music piece are displayed on the monitor screen. The musical composition selection for the second music piece is implemented according to the same procedure. The music codes for the desired musical compositions are accumulated sequentially by repeating the procedure until the desired number of music pieces is reached.

When all the music piece selections have been completed, the musical composition selection is completed by touching the "END BUTTON" selection item after the validation result of the last music piece has been displayed on the monitor screen.

1-3. Musical Composition Editing Step

By touching "END BUTTON" in the above mentioned step, as shown in Fig. 4, after having displayed the words "THE MUSICAL COMPOSITIONS YOU HAVE SELECTED ARE:", the musical compositions selected in the above mentioned musical composition selection step are displayed on the screen.

In this example, the selected musical compositions are displayed on the monitor screen as:

- | | | |
|----|----------------|--------------------|
| 1. | I LOVE YOU | BEATLES |
| 2. | SATISFACTION | THE ROLLING STONES |
| 3. | SOME MIGHT SAY | OASIS |
| 4. | LET IT BE | BEATLES |
| 5. | LIKE A VIRGIN | MADONNA |

and the selection items "SORT", "DELETE", "ADD" and "OK" are displayed on the monitor screen at the same time.

1-3.1. Sorting of Musical Compositions

In the following, the sorting procedures of the orders for the selected musical compositions will be described.

By touching the item "SORT" on the monitor screen, as shown below, on the monitor screen, brackets are displayed on the right side of each of the musical compositions, respectively:

1.	I LOVE YOU	BEATLES	[]
2.	SATISFACTION	THE ROLLING STONES	[]
3.	SOME MIGHT SAY	OASIS	[]
4.	LET IT BE	BEATLES	[]
5.	LIKE A VIRGIN	MADONNA	[]

In this example, because the first and the third musical compositions are to be sorted, the order of the musical compositions are changed to the order of 3. 2. 1. 4. 5. by entering the numbers 3, 2, 1, 4, 5 into the blank squares from the top to the bottom in order. Of course, it could be constituted such that the order of the musical compositions can be sorted by using other commonly known methods such as one utilizing a cursor.

On the monitor screen, the item "OK" is displayed at the same time, and, by touching "OK" when the desired sorting has been completed, the monitor screen returns to the display of "THE MUSICAL COMPOSITIONS YOU HAVE SELECTED ARE:", and the sort changed musical compositions, such as shown in below, are displayed:

3.	SOME MIGHT SAY	OASIS
2.	SATISFACTION	THE ROLLING STONES
1.	I LOVE YOU	BEATLES
4.	LET IT BE	BEATLES

5. LIKE A VIRGIN MADONNA

Then, by touching the item "OK" on the screen, the display of "THE MUSICAL COMPOSITIONS YOU HAVE SELECTED ARE:" is so displayed as to be renumbered such as;

1. SOME MIGHT SAY OASIS
2. SATISFACTION THE ROLLING STONES
3. I LOVE YOU BEATLES
4. LET IT BE BEATLES
5. LIKE A VIRGIN MADONNA

1-3.2. Deletion of Musical Compositions

Deletion of selected musical compositions can be implemented by touching the item "DELETE" on the monitor screen. By touching the item "DELETE", the character display "PLEASE TOUCH THE MUSICAL COMPOSITION(S) TO BE DELETED" is made, and further the list of the selected musical compositions:

1. SOME MIGHT SAY OASIS
2. SATISFACTION THE ROLLING STONES
3. I LOVE YOU BEATLES
4. LET IT BE BEATLES
5. LIKE A VIRGIN MADONNA

is displayed on the monitor screen, as well as the selection item "OK" is also displayed at the same time.

Herein, when deleting "2. SATISFACTION THE ROLLING STONES" in the musical composition list, the part of the musical composition "2. SATISFACTION THE ROLLING STONES" is removed from the list by touching the corresponding musical composition display portion on the monitor screen, and only that portion is displayed on the new page in the screen of the monitor with the selection item

"OK" as:

WILL BE DELETED

2. SATISFACTION THE ROLLING STONES

Herein, by touching the item "OK", the monitor screen displays again as shown below by renumbering the musical compositions except the deleted musical composition:

- | | | |
|----|----------------|---------|
| 1. | SOME MIGHT SAY | OASIS |
| 2. | I LOVE YOU | BEATLES |
| 3. | LET IT BE | BEATLES |
| 4. | LIKE A VIRGIN | MADONNA |

1-3.3. Addition of Musical Compositions

When newly adding a musical composition, the monitor screen displays the words "THE MUSICAL COMPOSITION WILL BE ADDED" by touching the selection item "ADD", and returns to the screen of "The Musical Composition Selection Step" as described above. Then, as described above, a new musical composition can be added by operating a necessary procedure while watching the monitor screen.

"THE GROUP A OF THE MUSIC CODES" corresponding to the edited musical compositions are created by touching the item "END BUTTON" on the screen after having implemented the necessary operations in the above mentioned musical composition editing step. Also, as described below, the monitor screen will shift to the next step by touching the item "END BUTTON".

1-4. Design Step

In this step, the jacket design selection and the album title entry of the MD are implemented.

1-4.1. Jacket Design Selection

With a completion of the musical composition editing step as described

in the above step 3, in this example, nine kinds of jacket design are displayed on one screen (i.e., one page) of the monitor, as shown in Fig. 5, along with the character display of "PLEASE SELECT THE FAVORITE JACKET". Jacket designs on other monitor screen pages can be displayed on the monitor screen in such a manner that the jacket designs displayed on the previous page and the next page can be displayed on the monitor screen by touching the entry displays of "PREVIOUS PAGE" and "NEXT PAGE" on the monitor screen, respectively. Of course, the number of kinds of the jacket designs incorporated in one screen (i.e., one page) may be set arbitrarily.

In this example, the design placed on the center of the left side column shown in Fig. 5 is selected by touching the monitor screen, and then the "JACKET DESIGN CODE B" corresponding to the selected jacket design is created by touching the entry display "OK".

1-4.2. Album Title Entry

After the jacket design selection is completed, the character display of "PLEASE ENTER THE ALBUM TITLE" as well as the items "KEYBOARD ENTRY", "TOUCHSENSOR ENTRY" are displayed on the monitor screen, as shown in Fig. 6. The customer enters the album title on which he/she has decided, through the keyboard or the touchsensor, after having touched either one of the items "KEYBOARD ENTRY" or "TOUCHSENSOR ENTRY". The monitor screen sequentially displays the characters of the title of the album to be entered such as "THE ALBUM TITLE IS "SHOUTA & MAYU". IS IT OK?". The items "CHANGE" and "OK" are displayed simultaneously when either one of the items "KEYBOARD ENTRY" or "TOUCHSENSOR ENTRY" is touched.

The customer implements an entry again with the procedures described above, by touching the item "CHANGE", if he/she desires to change the entered album title, while watching the monitor screen. Further, if the entered album title is all

right as it is, then the "ALBUM TITLE CHARACTER DATA C" corresponding to the album title being displayed is created by touching the item "OK".

1-5. Final Verification Step

After the above mentioned design step is completed, the verification items are displayed on the monitor screen, respectively, as shown in Fig. 7. That is, the contents of the respective items "ALBUM TITLE", "JACKET" and "SELECTED MUSIC" are displayed again for final verification. By touching the item "OK" after having completed this final verification, an indication of the cost for the MD which is intended to be produced, for example, as "YOUR COST IS 1,000 YEN", is displayed on the monitor screen.

1-6. Payment Step

Following the above mentioned final verification step, as shown now in Fig. 8, the items "CREDIT CARD", "PREPAID CARD", and "BANK WITHDRAWAL" are displayed on the monitor screen, along with the character display of "WHAT IS YOUR PAYMENT METHOD?". When the customer has selected the payment method by touching any one of the items on the monitor screen, the character display "PLEASE INSERT THE CARD" is implemented, and then the customer will insert the card corresponding to the selected payment method into the card reader. When the card read by the card reader is confirmed, then the "CARD DATA D" will be produced.

1-7. Transmission Step

After the above mentioned payment step is completed, the "MUSIC CODE GROUP A", "JACKET DESIGN CODE B", "ALBUM TITLE CHARACTER DATA C", "CARD DATA D" and "CUSTOMER CODE E", which have been produced as described above, are transmitted to the host-computer 22 which is provided in the backchannel company 20, through the communication system 14, the telephone line 40 and the communication system

21, as shown in Fig. 1.

1-8. Backchannel Company's Work Step (Figs. 9 and 10)

1-8.1. MD Disc Production Work

After all the above mentioned steps are completed, the production step of the MD is begun. In the present embodiment, the MD disc production work, i.e., the recording, is implemented in the backchannel company 20.

The input information required for the MD production is "MUSIC CODE GROUP A" as mentioned above. Based on MUSIC CODE GROUP A, the musical composition database 24 in the music database 27 is searched, the musical compositions corresponding to the information of the MUSIC CODE GROUP A are selected from the musical composition database 24, and then the selected musical compositions are high-speed recorded into the MD by the MD writer 28.

1-8.2. Jacket Production Work

Further, within the backchannel company 20, based on the "MUSIC CODE GROUP A", "JACKET DESIGN CODE B" and "ALBUM TITLE CHARACTER DATA C", the jacket production work (i.e., printing/thermal transfer) is implemented by the printer 29. Herein, at first, based on the "MUSIC CODE GROUP A", the musical composition list database 23 in the music database 27 is searched, and the attribute of each music is selected from the musical composition list database 23 and the index database 25, and then that information is printed on the predetermined locations of the jacket. Next, based on the "ALBUM TITLE CHARACTER DATA C", the title being input is printed on the title location of the jacket. Then, based on the "JACKET DESIGN CODE B", the selected jacket design is thermally transferred to the front cover of the jacket.

1-8.3. Accounting Approval

The host-computer 22 retrieves the accounting approval database 31 in the database 32 on the company side, based on the information of "CARD DATA D" and "CUSTOMER CODE E", and the necessary information is sent from the accounting approval database 31 to the predetermined financial institution such as a credit company and the like, and then the accounting approval of the customer is carried out.

1-8.4. Copyright Process

The host-computer 22 retrieves the musical composition list database 23 and the copyright database 26 in the music database 27, based on the information of "MUSIC CODE GROUP A". The copyright process is carried out by sending the necessary information from the copyright database 26 of the music database 27 to the JASRAC, and the original disc process is carried out by sending the necessary information from the copyright database 26 of the music database 27 to the recording company and the like.

1-8.5. Mailing Work

The host-computer 22 retrieves the customer database 30 in the database 32 of the company side based on the information of "CUSTOMER CODE E", prints the address label of the customer from the information of the customer's address and the like, and mails the MD to the customer after having completed the predetermined packaging. As a result, the customer could receive the ordered MD.

1-9. Musical Composition Database Update Step

It is very important for the customer to obtain information of new musical compositions (the musical composition list, the musical composition data, the index data, and the like). This information is always updated in the backchannel company 20, and new versions of the musical composition list, musical composition

data and index information are stored in the musical composition list database 23, the musical composition data database 24 and the index database 25 of the music database 27, respectively. However, in this embodiment, among this information, only the musical composition list is sent to the communication system 14 in the store 10 through the host-computer 22 and the communication system 21, and then is stored in the musical composition database 12 in the store 10 through the store equipment managing system 13.

In the following, the music database used for the personal musical composition recording media purchasing system according to the present invention, as described above, will be illustrated in detail.

A specification of the music database according to the present invention, which will be described below, is revealed for the first time in the art. The specification includes an accumulable database specification in which music is unified, and the music database is constituted in such a manner that the sound source, the MIDI data, the music score data, and the right attribution data are digitized and then unified. Then, the music database is designed in such a manner that the music is unification-coded and is also enabled to cope with the future market of the music.

Fig. 11 shows one embodiment of the music database which is constituted as described above. This music database includes five categories of (1) the music attribution, (2) the original disc right, (3) the copyright, (4) the music score, and (5) the sound source. Then, each category further includes the information regarding the items described below:

(1) Music Attribution

(1)-1 music code (country code + work code)

- (1)-2 name of musical composition
- (1)-3 minutes for musical composition
- (1)-4 name of artist(s)
- (1)-5 country code of artist(s)
- (1)-6 manufactured date

(2) Original Disc Right

- (2)-1 owner of original disc
- (2)-2 country code
- (2)-3 co-owner
- (2)-4 country code (3) Copyright
- (3)-1-1 songwriter
- (3)-1-2 country code
- (3)-1-3 representative publisher
- (3)-1-4 country code
- (3)-1-5 co-publisher
- (3)-1-6 country code
- (3)-2-1 musical composer
- (3)-2-2 country code
- (3)-2-3 representative publisher
- (3)-2-4 country code
- (3)-2-5 co-publisher
- (3)-2-6 country code
- (3)-3-1 musical arranger
- (3)-3-2 country code
- (3)-3-3 representative publisher